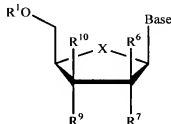


AMENDMENTS TO THE CLAIMS

A detailed listing of all claims that are or were in the present application, irrespective of whether the claim(s) remains under examination in the application are presented below. The claims are presented in ascending order and each includes one status identifier.

1. – 88. (Canceled).

89. (Currently Amended) A method for the treatment of a hepatitis C virus infection in a host, comprising administering an anti-virally effective amount of a compound of the formula:



or a pharmaceutically acceptable salt or ester thereof, wherein:

Base is a pyrrolopyrimidine;

R¹ and R² are independently H; phosphate; a stabilized phosphate prodrug; acyl; alkyl; sulfonate ester; benzyl, wherein the phenyl group is optionally substituted with one or more substituents of hydroxyl, amino, alkylamino, arylamino, alkoxy, aryloxy, nitro, cyano, sulfonic acid, sulfate, phosphonic acid, phosphate, or phosphonate; a lipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein R¹ and R² are independently H or phosphate;

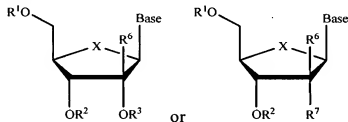
R⁶ is hydroxy, alkyl, azido, cyano, alkenyl, alkynyl, Br-vinyl, -C(O)O(alkyl), -C(O)O(lower alkyl), -O(acyl), -O(lower acyl), -O(alkyl), -O(lower alkyl), -O(alkenyl), chloro, bromo, fluoro, iodo, NO₂, NH₂, -NH(lower alkyl), -NH(acyl), -N(lower alkyl)₂, or -N(acyl)₂;

R⁷ is OR², hydroxy, alkyl, azido, cyano, alkenyl, alkynyl, Br-vinyl, -C(O)O(alkyl), -C(O)O(lower alkyl), -O(acyl), -O(lower acyl), -O(alkyl), -O(lower alkyl), -O(alkenyl), chlorine, bromine, iodine, NO₂, NH₂, -NH(lower alkyl), -NH(acyl), -N(lower alkyl)₂, -N(acyl)₂;

R⁹ is hydrogen, OR², hydroxy, alkyl, azido, cyano, alkenyl, alkynyl, Br-vinyl, -C(O)O(alkyl), -C(O)O(lower alkyl), -O(acyl), -O(lower acyl), -O(alkyl), -O(lower alkyl), -O(alkenyl), chlorine, bromine, iodine, NO₂, NH₂, -NH(lower alkyl), -NH(acyl), -N(lower alkyl)₂, -N(acyl)₂;
R¹⁰ is H, alkyl, chlorine, bromine or iodine; and
X is O, S, SO₂ or CH₂.

90. – 129. (Canceled).

130. (Currently Amended) The method of claim 89 ~~for the treatment of a hepatitis C virus infection in a host, comprising administering an anti-virally effective amount of a~~ wherein the compound is of the formula:



or a pharmaceutically acceptable salt or ester thereof, wherein:

Base is a pyrolopyrimidine;

R¹, R² and R³ are independently H; phosphate or a stabilized phosphate prodrug; acyl; alkyl; sulfonate ester; benzyl, wherein the phenyl group is optionally substituted with one or more of hydroxyl, amino, alkylamino, arylamino, alkoxy, aryloxy, nitro, cyano, sulfonic acid, sulfate, phosphonic acid, phosphate, or phosphonate; a lipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein R¹, R² and R³ are independently H or phosphate;

R⁶ is chloro, bromo, fluoro or iodo;

R⁷ is OR², hydroxy, alkyl, azido, cyano, alkenyl, alkynyl, Br-vinyl, -C(O)O(alkyl), -C(O)O(lower alkyl), -O(acyl), -O(lower acyl), -O(alkyl), -O(lower alkyl), -O(alkenyl), chlorine, bromine, iodine, NO₂, NH₂, -NH(lower alkyl), -NH(acyl), -N(lower alkyl)₂, -N(acyl)₂;

R⁹ is OR³, hydroxy, alkyl, azido, cyano, alkenyl, alkynyl, Br-vinyl, -C(O)O(alkyl), -C(O)O(lower alkyl), -O(acyl), -O(lower acyl), -O(alkyl), -O(lower alkyl), -

O(alkenyl), chlorine, bromine, iodine, NO₂, NH₂, -NH(lower alkyl), -NH(acyl), -
N(lower alkyl)₂, -N(acyl)₂; and

X is O, S, SO₂ or CH₂.

131. (Currently Amended) The method of claim 89 ~~for the treatment of a hepatitis C virus infection in a host~~, wherein

R¹⁰ is H, alkyl, chlorine, bromine or iodine;

R⁷ is OR², alkyl, chlorine, bromine, iodine, NO₂, NH₂, -NH(lower alkyl), -NH(acyl), -
N(lower alkyl)₂, -N(acyl)₂;

R⁹ is hydrogen, OR², hydroxy, alkyl, chlorine, bromine, iodine, NO₂, NH₂, -NH(lower
alkyl), -NH(acyl), -N(lower alkyl)₂, -N(acyl)₂;

R² is H;

R⁶ is alkyl, chlorine, bromine or iodine; and

X is O.

132. (Previously Presented) The method of claim 89 wherein R¹ is hydrogen or phosphate.

133. (Previously Presented) The method of claim 89 wherein R² is hydrogen, acyl or alkyl.

134. (Previously Presented) The method of claim 89 wherein R⁶ is alkyl.

135. (Previously Presented) The method of claim 89 wherein R⁷ is OR² or hydroxy; and
R⁹ is hydrogen, OR², or hydroxy.

136. (Previously Presented) The method of claim 89 wherein R⁷ is hydroxy.

137. (Previously Presented) The method of claim 89 wherein R⁹ is hydroxy.

138. (Previously Presented) The method of claim 89 wherein R⁷ and R⁹ are hydroxy.

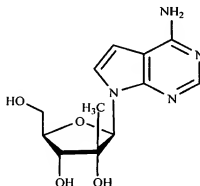
139. (Previously Presented) The method of claim 89 wherein R¹⁰ is hydrogen.

140. (Previously Presented) The method of claim 89 wherein X is O.

141. (Previously Presented) The method of claim 89 wherein

R¹ is hydrogen or phosphate;
R² is hydrogen, acyl or alkyl;
R⁶ is alkyl;
R⁷ is OR² or hydroxy;
R⁹ is hydrogen, OR², or hydroxy;
R¹⁰ is hydrogen; and
X is O.

142. (Currently Amended) The method of claim 89 ~~for the treatment of a hepatitis C virus infection in a host, comprising administering an anti-virally effective amount of a~~
wherein the compound is of the structure:



or a pharmaceutically acceptable salt or ester thereof.

143. (Previously Presented) The method of claim 89, 141 or 142 wherein the method comprises administering the compound or a pharmaceutically acceptable salt or ester thereof in combination or alternation with a second anti-hepatitis C virus agent.
144. (Previously Presented) The method of claim 143, wherein the second anti-hepatitis C virus agent is selected from the group consisting of interferon, ribavirin, a protease inhibitor, a thiazolidine derivative, a polymerase inhibitor, and a helicase inhibitor.
145. (Previously Presented) The method of claim 144, wherein the second anti-hepatitis C virus agent is interferon.

146. (Previously Presented) The method of claim 144, wherein the second anti-hepatitis C virus agent is a protease inhibitor.
147. (Previously Presented) The method of claim 144, wherein the second anti-hepatitis C virus agent is ribavirin.
148. (Previously Presented) The method of claim 89, 141 or 142, wherein the compound is in the form of a dosage unit.
149. (Previously Presented) The method of claim 148, wherein the dosage unit contains 50 to 1000 mg of said compound.
150. (Previously Presented) The method of claim 148, wherein said dosage unit is a tablet or capsule.
151. (Previously Presented) The method of claim 89, wherein the host is a human.
152. (Currently Amended) The method of claim 89, 141 or 142, wherein the compound is in substantially pure form at least 85 % by weight of the β -D-isomer.
153. (Previously Presented) The method of claim 89, 141 or 142, wherein the compound is at least 90% by weight of the β -D-isomer.
154. (Previously Presented) The method of claim 89, 141 or 142, wherein the compound is at least 95% by weight of the β -D-isomer.
155. (Previously Presented) The method of claim 130, wherein the host is a human.
156. (Previously Presented) The method of claim 131, wherein the host is a human.
157. (Previously Presented) The method of any one of claims 132-140, wherein the host is a human.
158. (Previously Presented) The method of claim 141, wherein the host is a human.
159. (Previously Presented) The method of claim 142, wherein the host is a human.

160. (Previously Presented) The method of claim 143, wherein the host is a human.
161. (Previously Presented) The method of claim 144, wherein the host is a human.
162. (Previously Presented) The method of claim 145, wherein the host is a human.
163. (Previously Presented) The method of claim 146, wherein the host is a human.
164. (Previously Presented) The method of claim 147, wherein the host is a human.
165. (Previously Presented) The method of claim 148, wherein the host is a human.
166. (Previously Presented) The method of claim 149, wherein the host is a human.
167. (Previously Presented) The method of claim 150, wherein the host is a human.
168. (Previously Presented) The method of claim 152, wherein the host is a human.
169. (Previously Presented) The method of claim 153, wherein the host is a human.
170. (Previously Presented) The method of claim 154, wherein the host is a human.
171. (Previously Presented) The method of claim 130, X is O.
172. (Previously Presented) The method of claim 132, X is O.
173. (Previously Presented) The method of claim 134, X is O.
174. (Previously Presented) The method of any one of claims 133, 135-139 wherein X is O.
175. (Previously Presented) The method of claim 89, wherein X is O, and the method comprises administering the compound or a pharmaceutically acceptable salt or ester thereof in combination or alternation with a second anti-hepatitis C virus agent.
176. (Previously Presented) The method of claim 175, wherein the second anti-hepatitis C virus agent is selected from the group consisting of interferon, ribavirin, a protease inhibitor, a thiazolidine derivative, a polymerase inhibitor, and a helicase inhibitor.
177. (Previously Presented) The method of claim 176, wherein the host is a human.

178. (New) The method of claim 89, wherein
R¹ is hydrogen or phosphate;
R⁶ is alkyl;
R⁷ and R⁹ are independently OR²;
R¹⁰ is hydrogen; and
X is O, S, SO₂, or CH₂.
179. (New) The method of claim 178 wherein X is O.
180. (New) The method of claim 178, wherein R² is hydrogen.
181. (New) The method of claim 178, wherein R⁶ is methyl.
182. (New) The method of claim 178, wherein the method comprises administering the compound or a pharmaceutically acceptable salt or ester thereof in combination or alternation with a second anti-hepatitis C virus agent.
183. (New) The method of claim 182, wherein the second anti-hepatitis C virus agent is selected from the group consisting of interferon, ribavirin, a protease inhibitor, a thiazolidine derivative, a polymerase inhibitor, and a helicase inhibitor.
184. (New) The method of claim 178, wherein the compound is in the form of a dosage unit.
185. (New) The method of claim 178, wherein the dosage unit contains 50 to 1000 mg of said compound.
186. (New) The method of claim 178, wherein said dosage unit is a tablet or capsule.
187. (New) The method of claim 178, wherein the host is a human.